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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,086	04/13/2001	Songxiang Wei	M-11127 US	2983

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EXAMINER

ISMAIL, SHAWKI SAIF

ART UNIT	PAPER NUMBER
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2155

10

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/835,086

Applicant(s)

WEI, SONGXIANG

Examiner

Shawki S Ismail

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 April 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>paper 5</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

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## **DETAILED ACTION**

1. Claims 1-24 are presented for examination.

The references in IDS, paper No. 5 dated 07-16-01 have been considered.

### ***Specification***

2. The application contains numerous related applications (see pages 1), which contains missing information such as serial numbers. Applicant is requested to update the status of the related applications.
3. In the section entitled "Brief Description of the Drawing," the flowchart for an exemplary OpenGL application based screen sampling is said to be in Fig. 3 (page 3 line 22-23). There is no Fig. 3 but the flowchart is located in Fig. 4, it appears to be a typographical error, correction is required.

### ***Double Patenting***

4. Claims 1-24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of copending Application No. 09/835,116.

Although the conflicting claims are not identical, they are not patentably distinct from each other because both the instant application and the co-pending application relate to data conferencing systems, and more particularly to the sharing of DirectDraw (with respect to the instant application) or OpenGL (with respect to the co-pending application) during a data conference. The only difference is the instant application is related to a

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DirectDraw API and the co-pending application is related to an OpenGL API. Both DirectDraw and OpenGL are a standard API for 2D or 3D graphics.

Both applications disclose a method for sharing an application, the method comprising: determining a position and a size of a (non DirectDraw or non-OpenGL) region of a shared application window by monitoring function calls made by the application; determining a position and a size of a (DirectDraw or an OpenGL) region of a shared application window by monitoring a DirectDraw COM interface; and capturing a screen shot of an image corresponding to the (non-DirectDraw or non-OpenGL) and the (DirectDraw or OpenGL) regions of the shared application window; wherein the position and the size of the (non-DirectDraw or non-OpenGL) region and the position and the size of the (DirectDraw or the OpenGL) region define a position and a size of the shared application window.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC §103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salesky et al. 6,343,313 (Hereinafter Salesky) in view of applicant's admitted prior art (AAPA).

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7. As per claims 1, 9 and 17, Salesky teaches the following:

a method for sharing an application, the method comprising,  
a computer-readable storage medium storing a computer program executable by a computer, the computer program comprising computer instructions for,

a data conferencing system comprising (e.g., One conferencing system allows conference participants to share all or a portion of the display seen on their computer screens, abstract):

a presenter computer connected to one or more server computers via a global area network (e.g., presenter client computer, figure 1),

a viewer computer connected to the one or more server computers via the global area computer network (e.g., attendee client computer, figure 2), and

a computer program executable by the presenter computer (e.g., One conferencing system allows conference participants to share all or a portion of the display seen on their computer screens. The conferees may be at sites removed from each other, or may view a recorded presentation or archived conference at different times. Conference participants are either "presenters" who can modify the display or "attendees" who cannot modify the display, abstract),

determining a position and a size of a non-DirectDraw region of a shared application window by monitoring function calls made by the application (the position of a pointer icon on a conferee's view of the captured region and an icon specified by the conferee might be communicated to each of the other attendee and presenter clients, so that each of the participants can see what each conferee is pointing at should a conferee choose to point to an element of the shared captured region, col. 2, lines 28 – 54, Color

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map changes can occur on the presenter client display system as the presenter opens, makes changes in, or closes a program, either in a window that overlaps the capture rectangle or in a window beyond the capture rectangle used for his or her own private work, col. 15, line 36 – 44); and

determining a position and a size of a DirectDraw region of a shared application window by monitoring DirectDraw COM interface (the position of a pointer icon on a conferee's view of the captured region and an icon specified by the conferee might be communicated to each of the other attendee and presenter clients, so that each of the participants can see what each conferee is pointing at should a conferee choose to point to an element of the shared captured region, col. 2, lines 28 - 54, Color map changes can occur on the presenter client display system ms the presenter opens, makes changes in, or closes a program either in a window that overlaps the capture rectangle or in a window beyond the capture rectangle used for his or her own private work, col. 15, line 36 - 44), and

capturing a screen shot of an image corresponding to the non-DirectDraw and the DirectDraw regions of the shared application window (In a video conferencing system, a snap-shot of the conference presentation is taken at regular intervals, such as thirty times per second, col. 1, lines 18 – 34.)

wherein the position and the size of the non-DirectDraw region and the position and the size of the DirectDraw region define a position and a size of the shared application window (e.g., the presenter selects an area of his or her computer display to be shared ("capture region"); it need not be a rectangular area. More than one capture region may be selected at a time and multiple regions may overlap. The selection may be

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made on a screen display, in a memory representation of a display, or in an aliased representation of either; the selection can be changed at any time. If the client has multiple monitors or multiple displays on a single monitor, independent selection can be made for each. A window provided by the presenter client computer's operating system, or by an application or other program, may be designated as the capture region, and then the capture region can be adjusted automatically if the window is moved or resized. This may be a fixed window, or the capture operation can be set to follow the selection of the current ("top" or "focus") window automatically. In a simple embodiment, the presenter selects a rectangular region on the screen ("capture rectangle"). For efficient transmission, the capture rectangle is broken up into rectangular subregions (blocks) to give good perception of response time. For example, if the presenter has selected all of an 800-by-600-pixel screen display to be within the capture rectangle, then it might be broken up into twelve 200-by-200-pixel square blocks. If the capture rectangle is later adjusted to be smaller, the blocks are changed to be made up of smaller rectangles, or the capture rectangle is divided into fewer blocks, or both; correspondingly, if the capture rectangle is later adjusted to be larger, the blocks are changed to be larger rectangles or the capture rectangle is divided into more blocks, or both. For efficient handling of blocks, the blocks are preferably kept between 1000 and 4000 pixels in size. As the blocks are updated on the attendee's screen, they are presented from the top row to the bottom row and from left to right within a row, col. 10, line 46 - col. 11, line 11).

However, Salesky does not specifically teach DirectDraw API based application.

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But, AAPA teaches DirectDraw API based applications (DirectDraw is a well-known application program interface (API) that is used by applications to draw graphics on a presenter's computer screen, page 22 lines 24 – page 23 line 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Salesky with the teachings of AAPA in order to facilitate shared applications having the DirectDraw APIs at the presenter's client computer.

8. As to claims 2, 10, and 18, Salesky teaches the method of claim 1 further comprising:

transmitting the position and the size of the shared application window to a viewer (Existing systems that capture graphics display commands, transmit them, then use them to recreate the original display appear to have great compression, which entails economy of network transmission, col. 10, lines, 29 – 45.)

9. As to claim 3, 11, and 19, Salesky teaches the method of claim 1 further comprising:

transmitting the screen shot to a viewer (In a video conferencing system, a snapshot of the conference presentation is taken at regular intervals, such as thirty times per second, col. 1, lines 18 – 34.)

10. As to claim 4, 12, and 20, Salesky teaches the method of claim 1 further comprising:

determining a position and a size of a non-shared application window by monitoring function calls made by the non-shared application (the presenter selects an area of his or her computer display to be shared ("capture region"); it need not be a



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rectangular area. More than one capture region may be selected at a time and multiple regions may overlap. The selection may be made on a screen display, in a memory representation of a display, or in an aliased representation of either; the selection can be changed at any time. If the client has multiple monitors or multiple displays on a single monitor, independent selection can be made for each. A window provided by the presenter client computer's operating system, or by an application or other program, may be designated as the capture region, and then the capture region can be adjusted automatically if the window is moved or resized. This may be a fixed window, or the capture operation can be set to follow the selection of the current ("top" or "focus") window automatically. In a simple embodiment, the presenter selects a rectangular region on the screen ("capture rectangle"). For efficient transmission, the capture rectangle is broken up into rectangular subregions (blocks) to give good perception of response time. For example, if the presenter has selected all of an 800-by-600-pixel screen display to be within the capture rectangle, then it might be broken up into twelve 200-by-200-pixel square blocks. If the capture rectangle is later adjusted to be smaller, the blocks are changed to be made up of smaller rectangles, or the capture rectangle is divided-into fewer blocks, or both; correspondingly, if the capture rectangle is later adjusted to be larger, the blocks are changed to be larger rectangles or the capture rectangle is divided into more blocks, or both. For efficient handling of blocks, the blocks are preferably kept between 1000 and 4000 pixels in size. As the blocks are updated on the attendee's screen, they are presented from the top row to the bottom row and from left to right within a row, col. 10, line 46 – col. 11, line11); and

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if the non-shared application window overlaps the shared application window, determining a position and a size of an overlapping region (the position of a pointer icon on a conferee's view of the captured region and an icon specified by the conferee might be communicated to each of the other attendee and presenter clients, so that each of the participants can see what each conferee is pointing at should a conferee choose to point to an element of the shared captured region, col. 2, lines 28 – 54, Color map changes can occur on the presenter client display system as the presenter opens, makes changes in, or closes a program, either in a window that overlaps the capture rectangle or in a window beyond the capture rectangle used for his or her own private work, col. 15, line 36 – 44, These and other features apply to other data streams shared in the conference or in meetings where there is no shared-image data stream, abstract.)

11. As to claim 5, 13, and 21, Salesky teaches the method of claim 4, further comprising: transmitting the overlapping region to a viewer (the presenter selects an area of his or her computer display to be shared ("capture region"); it need not be a rectangular area. More than one capture region may be selected at a time and multiple regions may overlap col. 10, lines 46-52.)

12. As to claim 6, 14, and 22, Salesky teaches the method of claim 1 further comprising:

determining whether the position or the size of the shared application window has changed by monitoring function calls made by the shared application (the presenter selects an area of his or her computer display to be shared ("capture region"); it need not be a rectangular area. More than one capture region may be selected at a time and multiple regions may overlap. The selection may be made on a screen display, in a

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memory representation of a display, or in an aliased representation of either; the selection can be changed at any time. If the client has multiple monitors or multiple displays on a single monitor, independent selection can be made for each. A window provided by the presenter client computer's operating system, or by an application or other program, may be designated as the capture region, and then the capture region can be adjusted automatically if the window is moved or resized. This may be a fixed window, or the capture operation can be set to follow the selection of the current ("top" or "focus") window automatically. In a simple embodiment, the presenter selects a rectangular region on the screen ("capture rectangle"). For efficient transmission, the capture rectangle is broken up into rectangular subregions (blocks) to give good perception of response time. For example, if the presenter has selected all of an 800-by-600-pixel screen display to be within the capture rectangle, then it might be broken up into twelve 200-by-200-pixel square blocks. If the capture rectangle is later adjusted to be smaller, the blocks are changed to be made up of smaller rectangles, or the capture rectangle is divided-into fewer blocks, or both; correspondingly, if the capture rectangle is later adjusted to be larger, the blocks are changed to be larger rectangles or the capture rectangle is divided into more blocks, or both. For efficient handling of blocks, the blocks are preferably kept between 1000 and 4000 pixels in size. As the blocks are updated on the attendee's screen, they are presented from the top row to the bottom row and from left to right within a row, col. 10, line 46 – col. 11, line 11); and

if the position or the size of the shared application window has changed, determining a new position and/or a new size of the shared application window (During a conferencing session, presenter client 12 takes periodic "snap-shots" of the application

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screen image contained within a rectangular boundary determined by the presenter, breaks the screen shot into smaller rectangular blocks, compares these blocks to information from a previous screen shot, col. 7, lines 35 – 56.)

13. As to claim 7, 15, and 23, Salesky teaches the method of claim 1 further comprising:

periodically capturing the image corresponding to the shared application window (During a conferencing session, presenter client 12 takes periodic "snap-shots" of the application screen image contained within a rectangular boundary determined by the presenter, breaks the screen shot into smaller rectangular blocks, compares these blocks to information from a previous screen shot, col. 7, lines 35 – 56).

14. As to claim 8, 16, and 24, Salesky teaches the method of claim 7 further comprising:

periodically transmitting the captured image to the viewer (During a conferencing session, presenter client 12 takes periodic "snap-shots" of the application screen image contained within a rectangular boundary determined by the presenter, breaks the screen shot into smaller rectangular blocks, compares these blocks to information from a previous screen shot, col. 7, lines 35 – 56).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawki S Ismail whose telephone number is 703-605-4362. The examiner can normally be reached on M-F 8:30 - 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 703-306-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shawki Ismail  
Patent Examiner  
September 10, 2004



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